



# Caledonian

## AIRPORT ULV Cables



## AIRPORT ULV CABLES

### **FAS (Fire Alarm System)**

|  |    |
|--|----|
| Detector Cable FFX200 05SZ1-R/F 1P1.5.....           | 3  |
| Fire Communication Cable FFX200 05SZ1-R/F 1P1.5..... | 5  |
| Sounder Cable FFX200 05SZ1-R/F 2G1.5.....            | 7  |
| Control Cable FFX200 05SZ1-R/F 2G2.5.....            | 9  |
| RS485 Data Cable RE-02Y(St)H 1P18A.....              | 11 |

### **SACS (Security Access Control System)**

|  |    |
|--|----|
| RS485 Data Cable RE-02Y(St)H 1P18A.....        | 13 |
| Push Button Cable FFX200 05mRZ1-R/F 2G0.5..... | 15 |
| Lock Cable FFX200 05mRZ1-R/F 2G1.0.....        | 17 |
| Card Reader Cable FFX200 05mRZ1-R/F 6G0.5..... | 19 |

### **CCTV (Closed Circuit TV)**

|   |    |
|---|----|
| Video Cable KX6 LH-FR.....              | 21 |
| RS485 Data Cable RE-02Y(St)H 1P18A..... | 23 |

### **PAS (Public Address System)**

|  |    |
|--|----|
| Loudspeaker Cable FFX200 05mRZ1-R/F 2G1.0..... | 25 |
| RS485 Data Cable RE-02Y(St)H 1P18A.....        | 27 |

### **BMS (Building Management System)**

|  |    |
|--|----|
| Digital Signal Cable FFX200 05mRZ1-R/F 2G1.0.....      | 29 |
| Analog Signal Cable FFX200 05mROZ1-R/F 2G1.0.....      | 31 |
| RS485 Data Cable RE-02Y(St)H 1P18A.....                | 33 |
| Temperature Control Cable FFX200 05mRZ1-R/F 6G0.5..... | 35 |
| Analog Signal Cable FFX200 05mROZ1-R/F 2G1.5.....      | 37 |

### **CPMS (Car Park Management System)**

|  |    |
|--|----|
| Communication Cable FFX200 05mROZ1-R/F 3P0.75..... | 39 |
| Talk-back Cable FFX200 05mROZ1-R/F 2G1.0.....      | 41 |

### **Current Carrying Capacities and Voltage Drop**

|   |    |
|---|----|
| Current Carrying Capacities and Voltage Drop..... | 43 |
|---|----|

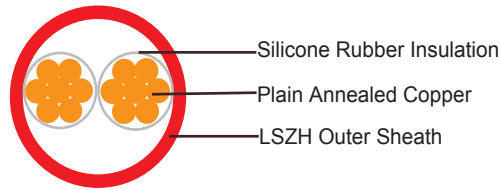


### FAS (Fire Alarm System)

#### Detector Cable , FFX200 05SZ1-R/F 1P1.5

FFX200 05SZ1-R 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |  |
|---------------------------|--|
| Basic design              | BS 7629-1  |
| Halogen Free              | IEC 60754-1  |
| No corrosive gas emission | IEC 60754-2  |
| Minimum Smoke Emission    | IEC 61034/1/2  |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32-070-2.2 (C1)                      |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)                       |
| Fire Resistance           | IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1) |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Twisting:** Cores are twisted into pairs with varying lay length to minimize crosstalk  
**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 300 MΩ x km (at 20°C)          |
| Short circuit temperature | 350°C                          |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 8 × Overall Diameter

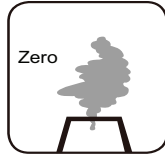
## CONSTRUCTION PARAMETERS

FFX200 05SZ1-R 1P1.5  
 FFX200 05SZ1-F 1P1.5

| No. of pair x | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|---------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|               | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1             | 1.5                          | 7/0.53                               | 0.5                          | 0.5                      | 7.0                      | 60             |
| 1             | 1.5                          | 30/0.25                              | 0.5                          | 0.5                      | 7.0                      | 60             |



Standard



Halogen Free  
IEC60754-1



No Corrosive  
Gas Emission  
IEC60754-2



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4

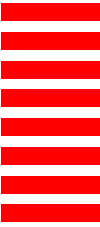


Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)





### FAS (Fire Alarm System)

#### Fire Communication Cable, FFX200 05SZ1-R/F 1P1.5

FFX200 05SZ1-R 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 1P1.5 (CU/SR/LSZH 1×2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |  |
|---------------------------|--|
| Basic design              | BS 7629-1  |
| Halogen Free              | IEC 60754-1  |
| No corrosive gas emission | IEC 60754-2  |
| Minimum Smoke Emission    | IEC 61034/1/2  |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32-070-2.2 (C1)                      |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)                       |
| Fire Resistance           | IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1) |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Twisting:** Cores are twisted into pairs with varying lay length to minimize crosstalk  
**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 300 MΩ x km (at 20°C)          |
| Short circuit temperature | 350°C                          |

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 8 × Overall Diameter

### CONSTRUCTION PARAMETERS

FFX200 05SZ1-R 1P1.5  
 FFX200 05SZ1-F 1P1.5

| No. of pair x | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|---------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|               | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1             | 1.5                          | 7/0.53                               | 0.5                          | 0.5                      | 7.0                      | 60             |
| 1             | 1.5                          | 30/0.25                              | 0.5                          | 0.5                      | 7.0                      | 60             |



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



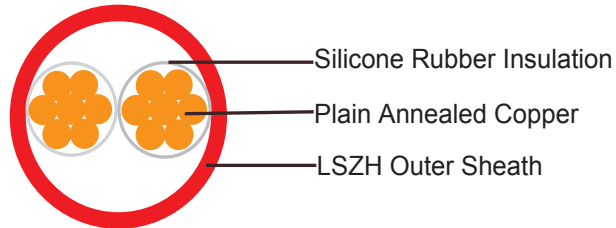
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### FAS (Fire Alarm System) Sounder Cable FFX200 05SZ1-R/F 2G1.5

FFX200 05SZ1-R 2G1.5 (CU/SR/LSZH 2×1.5mmsq 300/500V class 2)

FFX200 05SZ1-F 2G1.5 (CU/SR/LSZH 2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |  |
|---------------------------|--|
| Basic design              | BS 7629-1  |
| Halogen Free              | IEC 60754-1  |
| No corrosive gas emission | IEC 60754-2  |
| Minimum Smoke Emission    | IEC 61034/1/2  |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)                       |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)                       |
| Fire Resistance           | IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1) |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 300 MΩ x km (at 20°C)          |
| Short circuit temperature | 350°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

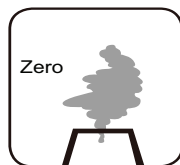
FFX200 05SZ1-R 2G1.5

FFX200 05SZ1-F 2G1.5

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2           | 1.5                          | 7/0.53                               | 0.5                          | 0.5                      | 7.0                      | 70             |
| 2           | 1.5                          | 30/0.25                              | 0.5                          | 0.5                      | 7.0                      | 70             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
NF C 32070-2.3(CR1)

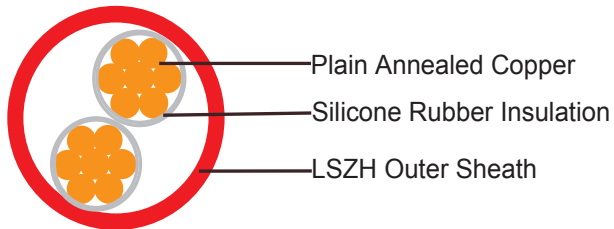


### FAS (Fire Alarm System)

#### Control Cable FFX200 05SZ1-R/F 2G2.5

FFX200 05SZ1-R 2G2.5 (CU/SR/LSZH 2×2.5mmsq 300/500V class 2)

FFX200 05SZ1-F 2G2.5 (CU/SR/LSZH 2×2.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables are designed specially for fire alarm systems where the integrity of the electrical circuit is critical in maintaining power supply. Applications can be found in emergency lightings, control and power circuits, power stations, fire alarm systems, underground.

### STANDARDS

|                           |  |
|---------------------------|--|
| Basic design              | BS 7629-1  |
| Halogen Free              | IEC 60754-1  |
| No corrosive gas emission | IEC 60754-2  |
| Minimum Smoke Emission    | IEC 61034-1/2  |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)                       |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)                       |
| Fire Resistance           | IEC 60331 / BS 5839-1 Clause 26 2d / NF C 32070-2.3(CR1) |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Fire resistant silicone rubber compound type EI2 as per BS 7655-1.1.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 300 MΩ x km (at 20°C)          |
| Short circuit temperature | 350°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

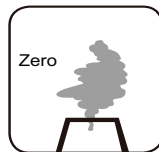
FFX200 05SZ1-R 2G2.5

FFX200 05SZ1-F 2G2.5

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2           | 2.5                          | 7/0.67                               | 0.8                          | 1.0                      | 9.0                      | 105            |
| 2           | 2.5                          | 50/0.25                              | 0.8                          | 1.0                      | 9.0                      | 105            |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



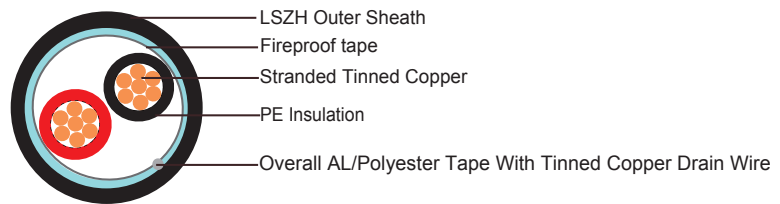
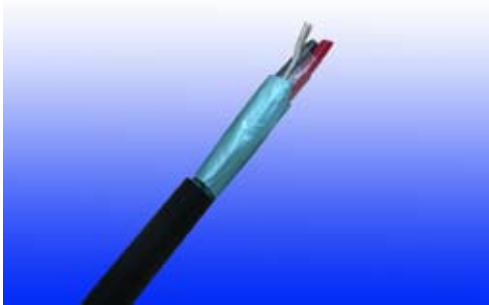
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## FAS (Fire Alarm System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



## APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

|                           |                                     |
|---------------------------|-------------------------------------|
| Basic design              | EIA/TIA 485                         |
| Halogen Free              | IEC 60754-1                         |
| No corrosive gas emission | IEC 60754-2                         |
| Minimum Smoke Emission    | IEC 61034-1/2                       |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)  |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)  |
| Fire Resistance           | IEC 60331-23 / NF C 32-070-2.3(CR1) |

## CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.



### ELECTRICAL PROPERTIES

|                        |                                    |
|------------------------|------------------------------------|
| <b>Dielectric test</b> | 1000 V r.m.s. for 5' (core-core)   |
|                        | 1000 V r.m.s. for 5' (core-screen) |
| <b>Impedance</b>       | 120Ω                               |
| <b>Capacitance</b>     | 45 nF/km conductor to conductor    |
|                        | 90 nF/km conductor to shield       |

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 8 × Overall Diameter

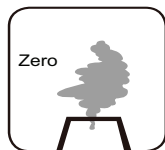
### CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

| No. of pair × | Wire Gauge | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|---------------|------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|               | AWG        | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1             | 18         | 7/0.404                              | 1.15                         | 1.2                      | 10.5                     | 100            |
| 1             | 18         | 16/0.254                             | 1.15                         | 1.2                      | 10.5                     | 100            |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



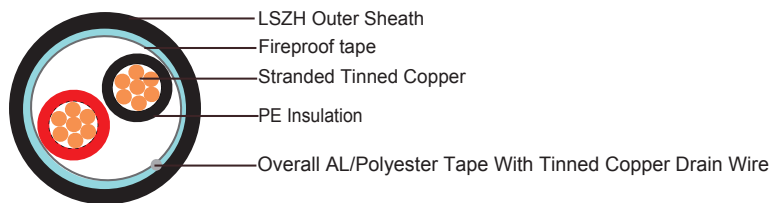
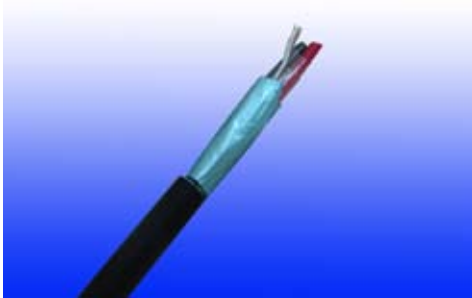
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### SACS (Security Access Control System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



### APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

### STANDARDS

|                           |                                     |
|---------------------------|-------------------------------------|
| Basic design              | EIA/TIA 485                         |
| Halogen Free              | IEC 60754-1                         |
| No corrosive gas emission | IEC 60754-2                         |
| Minimum Smoke Emission    | IEC 61034-1/2                       |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)  |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)  |
| Fire Resistance           | IEC 60331-23 / NF C 32-070-2.3(CR1) |

### CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                        |                                    |
|------------------------|------------------------------------|
| <b>Dielectric test</b> | 1000 V r.m.s. for 5' (core-core)   |
|                        | 1000 V r.m.s. for 5' (core-screen) |
| <b>Impedance</b>       | 120Ω                               |
| <b>Capacitance</b>     | 45 nF/km conductor to conductor    |
|                        | 90 nF/km conductor to shield       |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

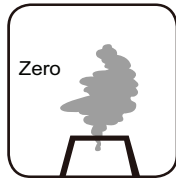
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

| No. of pair × | Wire Gauge | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|---------------|------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|               | AWG        | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1             | 18         | 7/0.404                              | 1.15                         | 1.2                      | 10.5                     | 100            |
| 1             | 18         | 16/0.254                             | 1.15                         | 1.2                      | 10.5                     | 100            |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



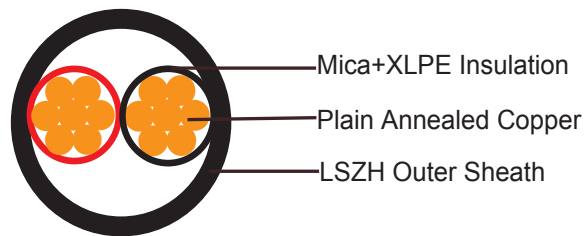
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### SACS (Security Access Control System) Push Button Cable FFX200 05mRZ1-R/F 2G0.5

FFX200 05mRZ1-R 2G0.5 (CU/MGT+XLPE/LSZH 2×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G0.5 (CU/MGT+XLPE/LSZH 2×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 8 × Overall Diameter

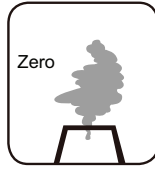
### CONSTRUCTION PARAMETERS

FFX200 05mRZ1-R 2G0.5  
 FFX200 05mRZ1-F 2G0.5

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2           | 0.5                          | 7/0.31                               | 0.5                          | 0.5                      | 6.5                      | 45             |
| 2           | 0.5                          | 16/0.2                               | 0.5                          | 0.5                      | 6.5                      | 45             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

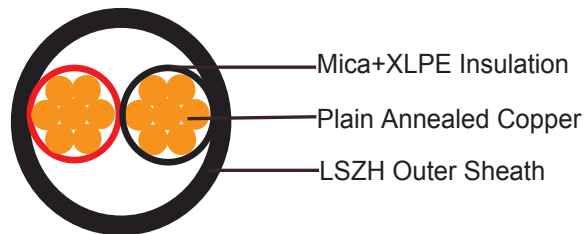


### SACS (Security Access Control System)

#### Lock Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state): -30°C – +90°C**

**Temperature range during installation (mobile state): -20°C – +50°C**

**Minimum bending radius: 8 × Overall Diameter**

## CONSTRUCTION PARAMETERS

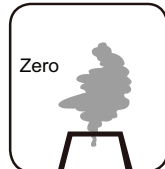
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

| No. of core | Nominal Cross Sectional Area<br>mm <sup>2</sup> | Number & Nominal Diameter of Strands<br>No/mm | Nominal Insulation Thickness<br>mm | Nominal Sheath Thickness<br>mm | Nominal Overall Diameter<br>mm | Approx. Weight<br>kg/km |
|-------------|---|---|------------------------------------|--------------------------------|--------------------------------|-------------------------|
| 2           | 1.0   | 7/0.44  | 0.5                                | 0.5                            | 7.1                            | 58                      |
| 2           | 1.0   | 32/0.2  | 0.5                                | 0.5                            | 7.1                            | 58                      |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



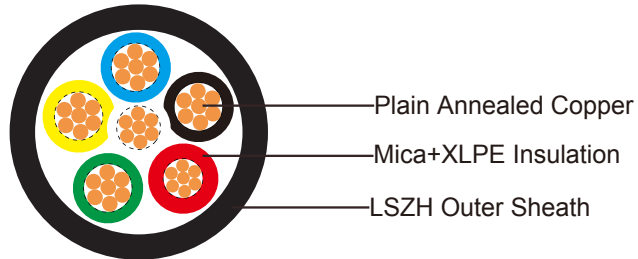


### SACS (Security Access Control System)

#### Card Reader Cable FFX200 05mRZ1-R/F 6G0.5

FFX200 05mRZ1-R 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

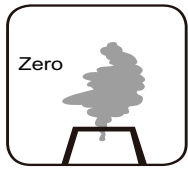
FFX200 05mRZ1-R 6G0.5

FFX200 05mRZ1-F 6G0.5

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 6           | 0.5                          | 7/0.31                               | 0.5                          | 0.5                      | 2.9                      | 61             |
| 6           | 0.5                          | 16/0.2                               | 0.5                          | 0.5                      | 2.9                      | 61             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



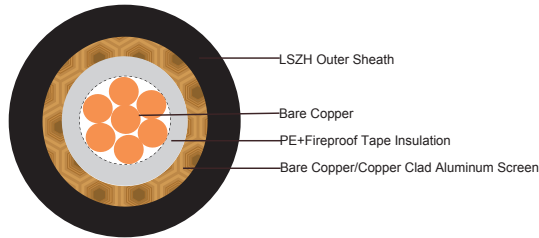
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### CCTV (Closed Circuit TV)

### Video Cable KX6 LH-FR

KX6 LH-FR



### APPLICATIONS

The cables are designed for CCTV, security, smoke detection and evacuation monitoring applications, where continued functionality is required during a fire situation. Due to the zero halogen low smoke construction, this cable is ideal for use in public, commercial and industrial environments.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | MIL-C-17                           |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### CABLE CONSTRUCTION

**Conductors:** Bare Copper

**Insulation:** Solid PE+fire resistant tape

**Screen:** Bare copper/copper clad aluminum(CCA)(80% coverage)

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

### ELECTRICAL PROPERTIES

|                             |               |
|-----------------------------|---------------|
| Impedance                   | 75±5 Ohm      |
| Nominal capacitance         | 67 pF/m       |
| Velocity of propagation     | 66%           |
| Insulation resistance       | >5000 Mohm.Km |
| Inner conductor resistance  | 87.5 Ohm/Km   |
| Outer conductor resistance  | 21/32.5Ohm/Km |
| Operating temperature range | 70 °C         |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C - +70°C

Temperature range during installation (mobile state): -5°C - +60°C

Min. Bending Radius: 8 × Overall Diameter

## ATTENUATION

| For bare copper braid |             |             | For CCA braid |             |             |
|-----------------------|-------------|-------------|---------------|-------------|-------------|
| Frequency             | Attenuation | Attenuation | Frequency     | Attenuation | Attenuation |
| Mhz                   | dB/100 m    | dB/ft       | Mhz           | dB/100 m    | dB/ft       |
| 10                    | 5.0         | 1.52        | -             | -           | -           |
| 50                    | 8.1         | 2.47        | 50            | 8.1         | 2.47        |
| 100                   | 13          | 3.96        | 100           | 13          | 3.96        |
| 200                   | 18.5        | 5.64        | 200           | 18.5        | 5.64        |
| 400                   | 22.5        | 6.86        | 400           | 22.5        | 6.86        |
| 850                   | 34.5        | 10.52       | 850           | 34.5        | 10.52       |
| 950                   | 37.5        | 11.43       | 950           | 37.5        | 11.43       |
| 1000                  | 45          | 13.72       | -             | -           | -           |

## RETURN LOSS

| Frequency | Return Loss |
|-----------|-------------|
| MHz       | (dB)        |
| 5-1000    | >=20        |

## CONSTRUCTION PARAMETERS

| Cable Code | Number & Nominal Diameter of Strands | Nominal Insulation Diameter | Nominal Sheath Thickness | Nominal Overall Diameter |
|------------|--------------------------------------|-----------------------------|--------------------------|--------------------------|
|            | No/mm                                | mm                          | mm                       | mm                       |
| KX6 LH-FR  | 7/0.2                                | 3.7                         | 1.0                      | 6.1                      |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



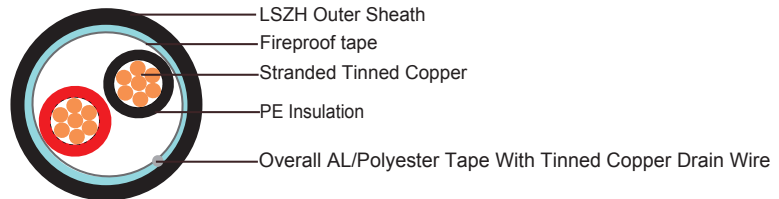
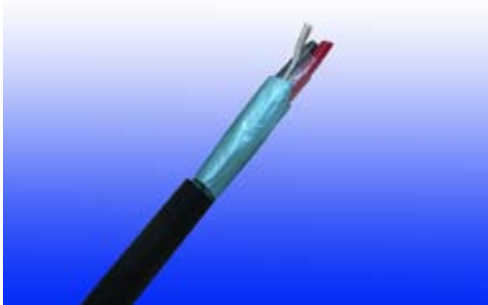
Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



**CCTV (Closed Circuit TV)**  
**RS485 Data Cable RE-02Y(St)H 1P18A**  
 RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



### APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

### STANDARDS

|                           |                                     |
|---------------------------|-------------------------------------|
| Basic design              | EIA/TIA 485                         |
| Halogen Free              | IEC 60754-1                         |
| No corrosive gas emission | IEC 60754-2                         |
| Minimum Smoke Emission    | IEC 61034-1/2                       |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)  |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)  |
| Fire Resistance           | IEC 60331-23 / NF C 32-070-2.3(CR1) |

### CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                        |                                    |
|------------------------|------------------------------------|
| <b>Dielectric test</b> | 1000 V r.m.s. for 5' (core-core)   |
|                        | 1000 V r.m.s. for 5' (core-screen) |
| <b>Impedance</b>       | 120Ω                               |
| <b>Capacitance</b>     | 45 nF/km conductor to conductor    |
|                        | 90 nF/km conductor to shield       |

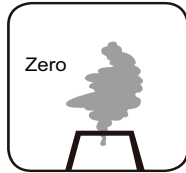
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

| No. of pair × | Wire Gauge | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|---------------|------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|               | AWG        | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1             | 18         | 7/0.404                              | 1.15                         | 1.2                      | 10.5                     | 100            |
| 1             | 18         | 16/0.254                             | 1.15                         | 1.2                      | 10.5                     | 100            |



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

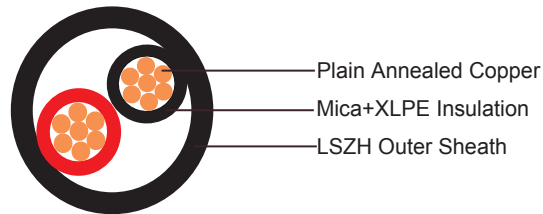


## PAS (Public Address System)

### Loudspeaker Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



## APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

## STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

## VOLTAGE RATING

300/500V

## CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.



## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

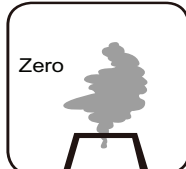
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

| No.of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|            | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2          | 1.0                          | 7/0.44                               | 0.5                          | 0.5                      | 5.3                      | 47             |
| 2          | 1.0                          | 32/0.2                               | 0.5                          | 0.5                      | 5.3                      | 47             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



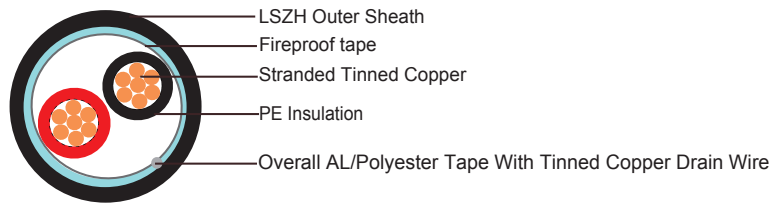
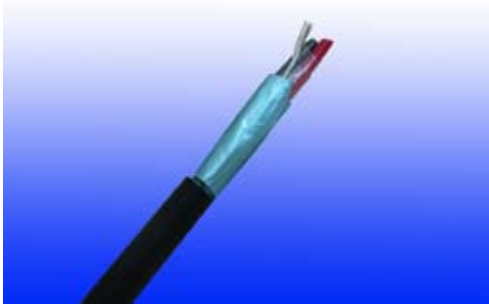
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## PAS (Public Address System)

### RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



## APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

|                           |                                     |
|---------------------------|-------------------------------------|
| Basic design              | EIA/TIA 485                         |
| Halogen Free              | IEC 60754-1                         |
| No corrosive gas emission | IEC 60754-2                         |
| Minimum Smoke Emission    | IEC 61034-1/2                       |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)  |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)  |
| Fire Resistance           | IEC 60331-23 / NF C 32-070-2.3(CR1) |

## CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                        |                                    |
|------------------------|------------------------------------|
| <b>Dielectric test</b> | 1000 V r.m.s. for 5' (core-core)   |
|                        | 1000 V r.m.s. for 5' (core-screen) |
| <b>Impedance</b>       | 120Ω                               |
| <b>Capacitance</b>     | 45 nF/km conductor to conductor    |
|                        | 90 nF/km conductor to shield       |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C  
**Temperature range during installation (mobile state):** -20°C – +50°C  
**Minimum bending radius:** 8 × Overall Diameter

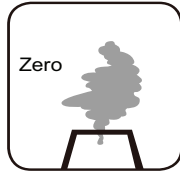
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

| No. of pair | Wire Gauge | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | AWG        | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1           | 18         | 7/0.404                              | 1.15                         | 1.2                      | 10.5                     | 100            |
| 1           | 18         | 16/0.254                             | 1.15                         | 1.2                      | 10.5                     | 100            |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



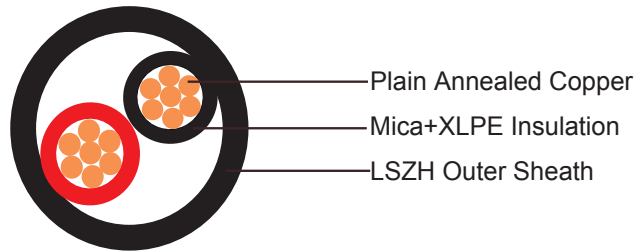
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### BMS (Building Management System) Digital Signal Cable FFX200 05mRZ1-R/F 2G1.0

FFX200 05mRZ1-R 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mRZ1-F 2G1.0 (CU/MGT+XLPE/LSZH 2×1.0mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

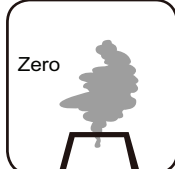
FFX200 05mRZ1-R 2G1.0

FFX200 05mRZ1-F 2G1.0

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2           | 1.0                          | 7/0.44                               | 0.5                          | 0.5                      | 7.1                      | 58             |
| 2           | 1.0                          | 32/0.2                               | 0.5                          | 0.5                      | 7.1                      | 58             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-07:



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

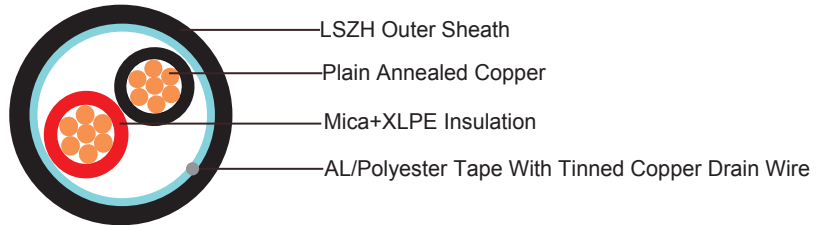


### BMS (Building Management System)

#### Analog Signal Cable FFX200 05mROZ1-R/F 2G1.0

FFX200 05mROZ1-R 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

### COLOUR CODE

**Insulation Colour:** According to IEC 60189-2 (other colour code on request).

**Sheath Colour:** Colour red (other colours on request).

### ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

### CONSTRUCTION PARAMETERS

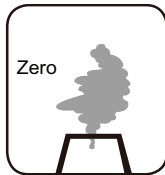
FFX200 05mROZ1-R 2G1.0

FFX200 05mROZ1-F 2G1.0

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2           | 1.0                          | 7/0.44                               | 0.6                          | 0.8                      | 7.2                      | 64             |
| 2           | 1.0                          | 32/0.2                               | 0.6                          | 0.8                      | 7.2                      | 64             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



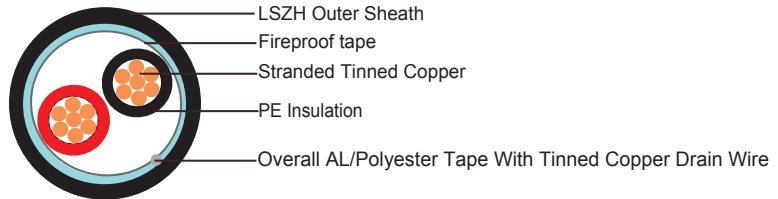
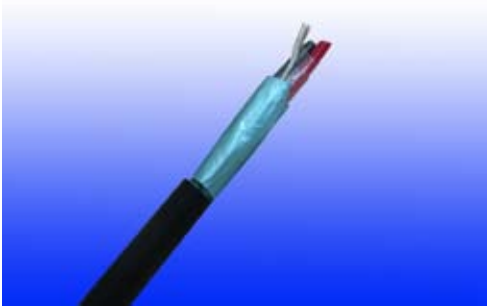
Fire Resistance  
IEC 60331  
NF C 32070-2.3(CR1)





### BMS (Building Management System) RS485 Data Cable RE-02Y(St)H 1P18A

RE-02Y(St)H 1P18A (CU/PE/OSCR/LSZH 1×2×18AWG)



### APPLICATIONS

The cables are designed for RS485 data connections. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

### STANDARDS

|                           |                                     |
|---------------------------|-------------------------------------|
| Basic design              | EIA/TIA 485                         |
| Halogen Free              | IEC 60754-1                         |
| No corrosive gas emission | IEC 60754-2                         |
| Minimum Smoke Emission    | IEC 61034-1/2                       |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1)  |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2)  |
| Fire Resistance           | IEC 60331-23 / NF C 32-070-2.3(CR1) |

### CABLE CONSTRUCTION

**Conductors:** Tinned annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Solid or foam PE compound

**Cabling Elements:** Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk.

**Overall Screen:** Aluminum/ polyester tape with tinned copper drain wire.

**Fire Barrier:** Fireproof Tape.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                        |                                    |
|------------------------|------------------------------------|
| <b>Dielectric test</b> | 1000 V r.m.s. for 5' (core-core)   |
|                        | 1000 V r.m.s. for 5' (core-screen) |
| <b>Impedance</b>       | 120Ω                               |
| <b>Capacitance</b>     | 45 nF/km conductor to conductor    |
|                        | 90 nF/km conductor to shield       |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

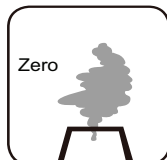
## CONSTRUCTION PARAMETERS

RE-02Y(ST)H 1P18A

| No. of pair | Wire Gauge | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | AWG        | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 1           | 18         | 7/0.404                              | 1.15                         | 1.2                      | 10.5                     | 100            |
| 1           | 18         | 16/0.254                             | 1.15                         | 1.2                      | 10.5                     | 100            |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



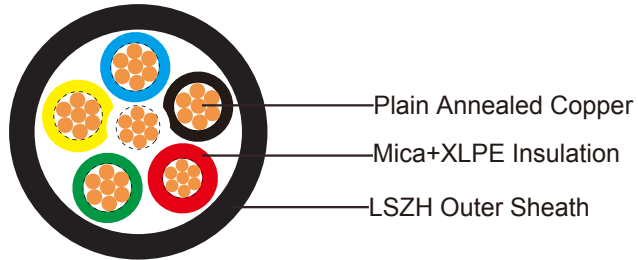
Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



## BMS (Building Management System) Temperature Control Cable FFX200 05mRZ1-R/F 6G0.5

FFX200 05mRZ1-R 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 2)

FFX200 05mRZ1-F 6G0.5 (CU/MGT+XLPE/LSZH 6×0.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Outer Sheath:** Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1.

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

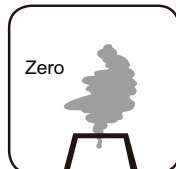
FFX200 05mRZ1-R 6G0.5

FFX200 05mRZ1-F 6G0.5

| No. of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|-------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|             | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 6           | 0.5                          | 7/0.31                               | 0.5                          | 0.5                      | 2.9                      | 61             |
| 6           | 0.5                          | 16/0.2                               | 0.5                          | 0.5                      | 2.9                      | 61             |



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

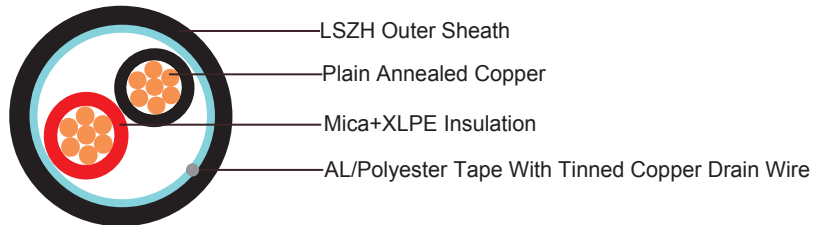


### BMS (Building Management System)

#### Analog Signal Cable FFX200 05mROZ1-R/F 2G1.5

FFX200 05mROZ1-R 2G1.5 (CU/MGT+XLPE/OSCR/LSZH 2×1.5mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.5 (CU/MGT+XLPE/OSCR/LSZH 2×1.5mmsq 300/500V class 5)



### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629-1                          |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

## COLOUR CODE

**Insulation Colour:** According to IEC 60189-2 (other colour code on request).

**Sheath Colour:** Colour red (other colours on request).

## ELECTRICAL PROPERTIES

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

## PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

## CONSTRUCTION PARAMETERS

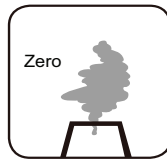
FFX200 05mROZ1-R 2G1.5

FFX200 05mROZ1-F 2G1.5

| No.of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|            | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2          | 1.5                          | 7/0.53                               | 0.6                          | 0.8                      | 6.5                      | 96             |
| 2          | 1.5                          | 30/0.25                              | 0.6                          | 0.8                      | 6.5                      | 96             |



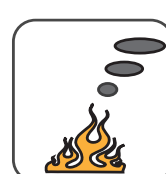
Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-074



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)

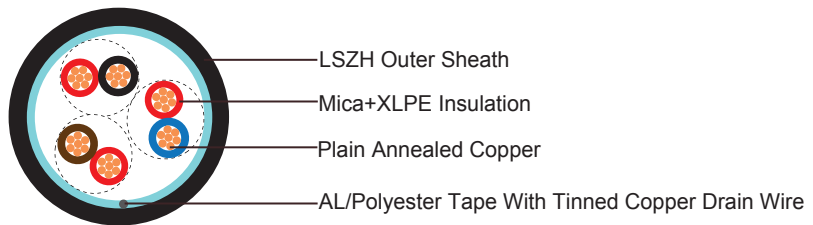


### CPMS (Car Park Management System)

#### Communication Cable FFX200 05mROZ1-R/F 3P0.75

FFX200 05mROZ1-R 3P0.75 (CU/MGT+XLPE/OSCR/LSZH 3×2×0.75mmsq 300/500V class 2)

FFX200 05mROZ1-F 3P0.75 (CU/MGT+XLPE/OSCR/LSZH 3×2×0.75mmsq 300/500V class 5)



### APPLICATIONS

The cables are single pair stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629                            |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

### VOLTAGE RATING

300/500V

### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

**COLOUR CODE**

**Insulation Colour:** According to IEC 60189-2 (other colour code on request).

**Sheath Colour:** Colour red (other colours on request).

**ELECTRICAL PROPERTIES**

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

**PHYSICAL AND THERMAL PROPERTIES**

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

**CONSTRUCTION PARAMETERS**

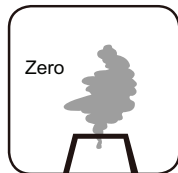
FFX200 05mROZ1-R 3P0.75

FFX200 05mROZ1-F 3P0.75

| No.of pair | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|            | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 3          | 0.75                         | 7/0.37                               | 0.6                          | 1.0                      | 11.5                     | 126            |
| 3          | 0.75                         | 24/0.2                               | 0.6                          | 1.0                      | 11.5                     | 126            |



Standard



Halogen Free  
IEC60754-1/  
EN50267-2-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardancy  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



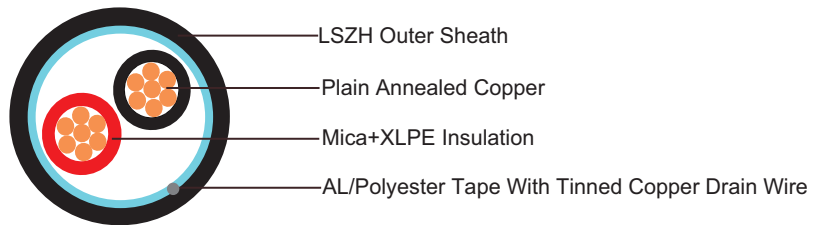
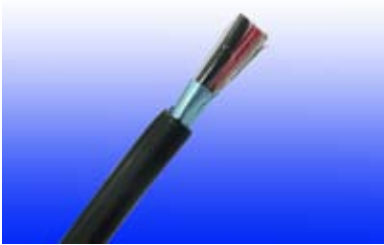


### CPMS (Car Park Management System)

#### Talk-back Cable FFX200 05mROZ1-R/F 2G1.0

FFX200 05mROZ1-R 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 2)

FFX200 05mROZ1-F 2G1.0 (CU/MGT+XLPE/OSCR/LSZH 2×1.0mmsq 300/500V class 5)



#### APPLICATIONS

The cables are multicore stranded flexible cables sheathed with thermoplastic LSZH compound. The cables have the ability to restrict the propagation of the flame in the event of a fire. This is especially important to slow down the spreading of the fire as the cables may pass from one area to another within a building. Applications can be found in control and power circuits, power stations, underground tunnels, lifts, escalators, and high-rise buildings.

#### STANDARDS

|                           |                                    |
|---------------------------|------------------------------------|
| Basic design              | BS 7629                            |
| Halogen Free              | IEC 60754-1                        |
| No corrosive gas emission | IEC 60754-2                        |
| Minimum Smoke Emission    | IEC 61034-1/2                      |
| Reduced Fire Propagation  | IEC 60332-3C / NF C 32070-2.2 (C1) |
| Flame Retardance          | IEC 60332-1 / NF C 32-070-2.1 (C2) |
| Fire Resistance           | IEC 60331 / NF C 32070-2.3(CR1)    |

#### VOLTAGE RATING

300/500V

#### CABLE CONSTRUCTION

**Conductors:** Plain annealed copper wire, stranded according to EN 60228 class 2 or class 5.

**Insulation:** Mica glass tape covered by extruded cross-linked XLPE compound.

**Cable Elements:** Insulated cores are twisted to form pairs.

**Cabling:** Pairs are cabled together.

**Overall Screen:** Aluminum/polyester tape with copper drain wire.

**Outer Sheath:** Thermoplastic LSZH compound.

**COLOUR CODE**

**Insulation Colour:** According to IEC 60189-2 (other colour code on request).

**Sheath Colour:** Colour red (other colours on request).

**ELECTRICAL PROPERTIES**

|                           |                                |
|---------------------------|--------------------------------|
| Dielectric test:          | 2000 V r.m.s. x 5' (core/core) |
| Insulation resistance     | 1000 MΩ x km (at 20°C)         |
| Short circuit temperature | 250°C                          |

**PHYSICAL AND THERMAL PROPERTIES**

**Temperature range during operation (fixed state):** -30°C – +90°C

**Temperature range during installation (mobile state):** -20°C – +50°C

**Minimum bending radius:** 8 × Overall Diameter

**CONSTRUCTION PARAMETERS**

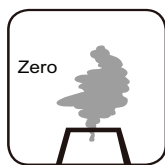
FFX200 05mROZ1-R 2G1.0

FFX200 05mROZ1-F 2G1.0

| No.of core | Nominal Cross Sectional Area | Number & Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Nominal Overall Diameter | Approx. Weight |
|------------|------------------------------|--------------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|            | mm <sup>2</sup>              | No/mm                                | mm                           | mm                       | mm                       | kg/km          |
| 2          | 1.0                          | 7/0.44                               | 0.6                          | 0.9                      | 7.2                      | 64             |
| 2          | 1.0                          | 32/0.2                               | 0.6                          | 0.9                      | 7.2                      | 64             |



Standard



Halogen Free  
IEC60754-1



Low Corrosivity  
IEC60754-2  
EN50267-2-2/3  
NF C 32-074



Low Smoke Emission  
IEC 61034-1&2  
EN 50268-1&2/NF C32-073



Reduced Fire Propagation  
NF C32-070-2.2(C1)  
IEC60332-3-24  
EN50266-2-4



Flame Retardance  
IEC60332-1-2  
/NF C32-070-2.1(C2)



Fire Resistance  
IEC 60331  
/NF C 32070-2.3(CR1)



### Current Carrying Capacities And Voltage Drop

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

#### Current-Carrying Capacities (Amp)

| Conductor cross-sectional area | Reference Method 4 (enclosed in conduit in thermally insulating wall etc) |                             | Reference Method 3 (enclosed in conduit on a wall or in trunking etc) |                             | Reference Method 1 (clipped direct)                   |  | Reference Method 11 (on a perforated cable tray, horizontal or vertical) |  | Reference Method 12 (free air) |                      |         |
|--------------------------------|---|-----------------------------|---|-----------------------------|---|--|--|--|--------------------------------|----------------------|---------|
|                                | 2 cables, single-phase a.c. or d.c.                                       | 3 or 4 cables, 3-phase a.c. | 2 cables, single-phase a.c. or d.c.                                   | 3 or 4 cables, 3-phase a.c. | 2 cables, single-phase a.c. or d.c. flat and touching | 3 or 4 cables, 3-phase a.c. flat and touching or trefoil | 2 cables, single-phase a.c. or d.c. flat and touching                    | 3 or 4 cables, 3-phase a.c. flat and touching or trefoil | Horizontal flat spaced         | Vertical flat spaced | Trefoil |
| 1                              | 2   | 3                           | 4   | 5                           | 6   | 7  | 8  | 9  | 10                             | 11                   | 12      |
| mm <sup>2</sup>                | A   | A                           | A   | A                           | A   | A  | A  | A  | A                              | A                    | A       |
| 1.0                            | 13  | -                           | -   | -                           | 15  | -  | -  | -  | -                              | -                    | -       |
| 1.5                            | 18  | 17                          | 22  | 19                          | 25  | 23   | -  | -  | -                              | -                    | -       |
| 2.5                            | 24  | 23                          | 30  | 26                          | 34  | 31   | -  | -  | -                              | -                    | -       |

#### Voltage Drop (Per Amp Per Meter)

| Nominal Cross Section Area | 2 cables d.c. | 2 cables, single-phase a.c.                                     |   | 3 or 4 cables, 3-phase a.c.                                     |  |   |
|----------------------------|---------------|---|---|---|--|---|
|                            |               | Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall) | Ref. Methods 1 and 11 (clipped direct or on trays touching) | Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall) | Ref. Methods 1, 11 and 12 (in trefoil) | Ref. Methods 1 and 11 (Flat and touching) |
| 1                          | 2             | 3   | 4   | 5   | 6                                      | 7   |
| mm <sup>2</sup>            | mV/A/m        | mV/A/m  | mV/A/m  | mV/A/m  | mV/A/m                                 | mV/A/m                                    |
| 1.0                        | 46            | 46  | -   | -   | -                                      | -   |
| 1.5                        | 31            | 31  | 27  | 27  | 27                                     | 27  |
| 2.5                        | 19            | 19  | 16  | 16  | 16                                     | 16  |



**Address:**

**Marchants Industrial Centre, Mill Lane, Laughton, Lewes,  
East Sussex, BN8 6AJ, UK**

**Tel: 44(0) 207 4195087**

**Fax: 44(0) 207 8319489**

**E-mail: [sales@caledonian-cables.co.uk](mailto:sales@caledonian-cables.co.uk)**

**[www.caledonian-cables.co.uk](http://www.caledonian-cables.co.uk)**

